REMARKS

Claims 1-25 are presently pending in the case and were rejected in the office action. Reconsideration is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-25 were rejected under 35 U.S.C. 103 as being unpatentable over Kay (U.S. Patent No. 6,411,850) in view of Soucie et al. (Article). The rejections are respectfully traversed.

In rate-adaptive pacing, measured exertion levels in a patient are mapped to a sensor indicated rate by a rate response curve. Applicant has claimed a method and system for rate-adaptive pacing in which a patient's maximum exertion level (i.e., an exertion level corresponding to the patient's maximum exercise capacity) is automatically determined and used to define (i.e., determined the slope of) a rate response curve such that the maximum exertion level would be mapped to a physiologically favorable maximum heart rate, designated as the MAR. The phrase "would be mapped" is used instead of "is mapped" because, independently from the MAR, a separate parameter is used to limit the sensor indicated rate to a specified maximum value, designated as the maximum sensor indicated rate or MSR. Note that the MSR as claimed by applicant, unlike the MAR, is not used to define an endpoint, and hence a slope of, the rate response curve. The MSR is subsequently increased after a specified time period during which the patient's maximum exertion level is updated.

Applicant reiterates the remarks made in the response to the previous office action relating to the examiner's characterization of the Kay reference. Specifically, contrary to the examiner's assertion, the anaerobic breakpoint of a rate response curve is not a maximum sensor indicated rate. It is simply a point on the rate response curve where the slope of the curve changes in order to take into account that the anaerobic threshold has been reached. Both the Kay and Soucie references deal with methods for determining an anaerobic breakpoint for a rate response curve. Neither the Kay nor the Soucie reference, however, teaches or suggests limiting a sensor indicated rate with an MSR parameter that does not also serve as an endpoint of the rate response curve or otherwise determine the slope of the rate response curve. It is this type of

MSR parameter which is claimed by applicant. Of course, there is also no teaching or suggestion in the cited references for increasing such an MSR parameter over a period time in which the patient's maximum exertion level is updated. Applicant believes that the arguments presented herein have made it clear that the rejections of claims 1-25 as being unpatentable over the Kay and Soucie references should be withdrawn.

Conclusion

Applicant believes that the application is in condition for allowance and respectfully requests such action. Please charge any fees deemed necessary to Deposit Account 19-0743.

The examiner is invited to telephone the below-signed attorney at (847) 432-7302 to discuss any questions that may remain with respect to the present application.

Respectfully submitted,

WEIMIN SUN ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(847) 432-7302

Date 6-1-04

By _____
J. Kevin Parker
Reg. No. 33,024

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Mail Stop Amendment, P.O. Box 1450, Alexandria, VA 22313-1450, on this 1 day of June, 2004.

Paula Sucha
Name

Paula Sucha
Signature